

Report NO: 1210A0007\_I

# FSP065-RAB of DSS-CV21 Power Electronics Test Report

Summary	<input checked="" type="checkbox"/> <b>Passed</b>			
	<input type="checkbox"/> <b>Failed</b>			
<input type="checkbox"/> <b>Passed with Deviation</b>				
<b>Comment:</b>				
<b>Test Result Summary</b>				
	Critical	Major	Minor	Enhancement
Defect Found	0	0	0	0
Defect Unsolved	0	0	0	0

Issue date

**11/21/2012**

Approval

**Tom Lin**

Test Engineer

**Sean Hsu**

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**1. Project**

FSP065-RAB AC-DC Adapter for DSS-CV21

**2. Power Manufacturer**

FSP

**3. Team Member**

PM : Randy Chang ; HW : Eyck Ni ; ME : TB Fan

**3. Test Equipment**

4.1. CPU Board : EB1030 REV.1.01G

4.2. CPU : INTEL ATOM D2550 1.86GHz

4.3. HDD : WD WD160BEVT-22A23 160GB

4.4. MEMORY : DSL , DDR3-1066 2GB\*2 , EPLIDA J1108BDSE-DJ-E

4.5. Power Supply : FSP , Model : FSP065-RAB , 19V/3.42A/65Watt

4.6. LCD Monitor : CHIMEI , Model : A170E2-T08

4.7. USB Keyboard : Logitech , Model : Y-BL49

4.8. USB Mouse : Logitech , Model : M-BT85

**5. AC Adapter Spec**

AC Input : 100VAC~240VAC / 47Hz~63Hz

DC Output : 19Vdc Min Load : 0A Full Load : 3.42A / 65W

## 6. Test Item

Test Item	Test Condition / Specification		Sanction	
			Measured	Result
6.1. AC Input Current	I/P:90VAC	1.7A	1.5A	Passed
6.2. MAX Inrush Current	I/P:100VAC	A	8.12A	-
	I/P:230VAC	230A	11.8A	-
6.3. Input Frequency & Voltage	I/P:90VAC/47HZ	■ON □ OFF	-	Passed
	I/P:90VAC/63HZ	■ON □ OFF	-	Passed
	I/P:264VAC/47HZ	■ON □ OFF	-	Passed
	I/P:264VAC/63HZ	■ON □ OFF	-	Passed
6.4. Switching Test	Switching Time: 0.5 Sec MIN Load / Full Load	@90VAC ■ON □ OFF	-	Passed
	Switching Time: 0.5 Sec MIN Load / Full Load	@115VAC ■ON □ OFF	-	Passed
	Switching Time: 0.5 Sec MIN Load / Full Load	@230VAC ■ON □ OFF	-	Passed
	Switching Time: 0.5 Sec MIN Load / Full Load	@264VAC ■ON □ OFF	-	Passed
6.5. Efficiency	I/P:115VAC O/P:3.42A	@85%Min	86.61%	Passed
	I/P:230VAC O/P:3.42A	@85%Min	87.79%	Passed
6.6. Line Regulation	I/P:90VAC~264VAC	<5%	0.01%	Passed
6.7. Load Regulation	I/P:115VAC O/P:MIN~FULL LOAD	<5%	0.51/-1.5%	Passed
	I/P:230VAC O/P:MIN~FULL LOAD	<5%	0.51/-1.5%	Passed
6.8. Over-Voltage Protection	I/P:230VAC O/P:MIN LOAD	V1 : 25V (MAX)	-	-
6.9. Over-Circuit Protection	O/P: 19V	5.5A(MAX)	4.7A	Passed
6.10. Over-Load Protection	I/P:115VAC O/P:MIN LOAD	160%	137.3%	Passed
	I/P:230VAC O/P:MIN LOAD	160%	138.6%	Passed
6.11. Short Circuit Protect	I/P:100VAC O/P:MIN LOAD	19V&GND Short	-	Passed
	I/P:240VAC O/P:MIN LOAD	19V&GND Short	-	Passed

6.12. Line Voltage Surge	O/P: FULL LOAD	Surge voltage from 132VAC to 147VAC (0.5sec), back to 132VAC	-	Passed
	O/P: FULL LOAD	Surge voltage from 264VAC to 293VAC (0.5sec), back to 264VAC	-	Passed
6.13. Line Voltage Sag	O/P: FULL LOAD	Sag voltage from 108VAC to 80VAC (0.5sec), back to 108VAC	-	Passed
	O/P: FULL LOAD	Sag voltage from 198VAC to 161VAC (0.5sec), back to 198VAC	-	Passed
6.14. Ripple & Noise	I/P:115VAC O/P:FULL LOAD	$\leq 150\text{mv}$	125mv	Passed
	I/P:230VAC O/P:FULL LOAD	$\leq 150\text{mv}$	119mv	Passed
6.15. Setup Time	I/P:90VAC O/P:FULL LOAD	3S(MAX)	274ms	Passed
	I/P:230VAC O/P:FULL LOAD	mS(MAX)	101.5ms	Passed
6.16. Hold up Time	I/P:100VAC O/P:FULL LOAD	8mS(MIN)	19.7ms	Passed
	I/P:240VAC O/P:FULL LOAD	mS(MIN)	83.25ms	Passed
6.17. Rise Time	I/P:115VAC O/P:FULL LOAD	50mS(MAX)	6.053ms	Passed
	I/P:230VAC O/P:FULL LOAD	mS(MAX)	5.437ms	Passed
6.18. Turn on Overshoot	Turn on overshoot shall not exceed 10% over nominal voltages@ 20 % LOAD		-	Passed
	Turn on overshoot shall not exceed 10% over nominal voltages@ 20 % LOAD		-	Passed
6.19. Turn off Undershoot	Turn off undershoot shall not exceed 10% over nominal voltages		-	Passed
	Turn off undershoot shall not exceed 10% over nominal voltages		-	Passed
6.20. Remote ON/OFF	Simulate TTL signal to test this function		-	-
6.21. Power Good Signal	Shall go high level with a delay of 100~500ms		-	-
6.22. System Power Consumption Test	No Run Prime95	I/P:90VAC 0.39A 15.6W	O/P: 19V/0.7A 13.3W	Passed
	Run Prime95	I/P:90VAC 0.48A 20.0W	O/P: 19V/0.9A 17.1W	Passed